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July 14, 2016

Zoning Board of Adjustment
Cascade County
121 4th Street North
Great Falls, MT 59401

Dear Members of the Zoning Board of Adjustment,

I am writing today because I understand that you are considering two solar projects proposed to be built in Cascade County by Cypress Creek Renewables. These projects have the potential to provide substantial benefits for the state of Montana, particularly for Cascade County, and on behalf of the Montana Renewable Energy Association I encourage you to allow them to proceed.

The Montana Renewable Energy Association (MREA) is a nonprofit organization founded in 2000 with a mission to increase the use of renewable energy in Montana. Our members include dozens of small businesses across the state that sell and install distributed renewable energy systems such as rooftop solar arrays.

We urge you to consider the potential economic benefits of the proposed solar projects to your community, including property tax revenue and local jobs. Nationwide, the solar industry employs more than 200,000 people, and is growing at ten times the national average employment rate. We understand from Cypress Creek Renewables that their business model is to hire local contractors whenever possible for both project construction and ongoing maintenance (vegetation control and electrical work). MREA's members include a number of qualified solar installation businesses that would be eager for the opportunity to be involved in these projects.

In addition to its economic benefits, solar is a valuable energy resource. It produces at times of high demand for electricity, when power is especially valuable. By generating clean, pollution-free energy, solar avoids pollution control costs, diversifies our state's energy portfolio, and provides a hedge against volatile fossil fuel prices.

I understand that concerns have been raised about the possibility of glare from the proposed solar projects. While glare is a real concern for a different type of solar technology, called concentrated solar power (CSP), it is not an issue for solar photovoltaic (PV) systems. The US Department of Energy's National Renewable Energy Laboratory states that "PV modules use non-reflective glass and are designed to absorb rather than reflect the light that hits the panels in order to convert solar energy into electricity. PV modules are generally less reflective than windows and are installed at numerous airports."[1]

[1] National Renewable Energy Laboratory, *Top 5 Large-Scale Solar Myths*, https://www.nrel.gov/tech_deployment/state_local_governments/blog/top-five-large-scale-solar-myths. Accessed 7/13/16.

I also understand that concerns have been raised about the impact on local property values. This is another issue addressed by the National Renewable Energy Laboratory:

> While the impacts of a solar farm on neighboring property values have not been studied in-depth, numerous studies found the impact of wind energy generation on neighboring property values to be negligible. As solar farms do not have the same impacts as wind farms (i.e., PV facilities do not cast a shadow on neighboring properties, cause light flicker, or have the same visual impact as wind farms), the impacts on property values caused by solar farms are anticipated to be less than the impacts of wind farms.[2]

In addition, studies of the effect of *rooftop* solar on property values have found a significant positive impact: an average of $4 per watt of solar PV installed, or about $15,000 for a typical residential rooftop solar system.[3] While the property value effect of rooftop solar is not directly relevant to larger-scale solar arrays such as those proposed by Cypress Creek Renewables, it is an important indication of the value placed on solar by the public.

Thank you for considering these comments, and please don't hesitate to contact me if there's any additional information we can provide.

Sincerely,

Diana Maneta

Diana Maneta
Executive Director

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[2] Ibid.

[3] Lawrence Berkeley National Laboratory, *Selling into the Sun: Price-Premium Analysis of a Multistate Dataset of Solar Homes*, January 2015. https://emp.lbl.gov/sites/all/files/selling-into-the-sun-jan12.pdf.